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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

UNITED STATES OF AMERICA,)	No. CR 13-693 SI
)	
Plaintiff,)	UNITED STATES' EXPERT WITNESS NOTICE
)	CELLSITE EXPERT
v.)	
)	
ELIJAH COOPER,)	Date: May 13, 2015
)	Time: 9:00 a.m.
Defendant.)	

Pursuant to Federal Rule of Criminal Procedure 16(a)(1)(G), the Government hereby submits a summary of the testimony that it may use under Rules 702, 703, and/or 705 of the Federal Rules of Evidence during its case-in-chief at trial. The Government reserves the right to supplement and/or to amend this disclosure.

Pursuant to Rule 16(b)(1)(C) of the Federal Rules of Criminal Procedure, the Government hereby reiterates its request for disclosure by the defendant of any testimony he intends to present under Rules 702, 703, and/or 705 of the Federal Rules of Evidence.

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CELLSITE EXPERT HECTOR LUNA

FBI CAST Task Force Officer ("TFO") Hector Luna will provide expert testimony as to cellular telephone analysis. Specifically, Agent Luna will explain (1) how cellular telephones and cellular telephone networks operate; (2) the information contained in cellular telephone records, also known as call detail records; and (3) that it is possible to approximate to a fair degree of accuracy the location of a cellular telephone based on information contained in call detail records, based on the cell site location accessed for a particular call, along with any attendant cell sector information.

Agent Luna will testify that he conducted cell site location analysis for the cellular phones assigned call numbers 415-374-3876, 415-410-9786, based on data relating to February 5, 2013, March 3, 2013, March 9, 2013 and March 18, 2013, which will show that signals from these cell phones were received by cell site towers in the Bay Area. Agent Luna will go those locations to determine which cell towers are used at those locations.

Agent Hansen will testify about the methods of cellular telephone communications and how those communications are made possible by sending signals to nearby cell site towers. TFO Hansen will explain that cellular telephone networks provide service to their customers through antennas deployed across the provider's coverage area. When the user places an outbound call, the handset transmits that communication over the airwaves to a nearby tower antenna, which relays the call to a local switch for routing. Conversely, whenever another party places a call to a user's cellular telephone, the network "pages" that phone to alert the owner to the incoming call; if the owner answers, the call are put through and (as before) carried by a tower near the phone. As a result, the system's awareness of a wireless phone's general whereabouts is essential to providing cellular service. Spacing between antenna towers varies depending on a number of factors, especially terrain and population density. Except in sparsely populated areas, a typical tower will have three separate antenna faces (also called sectors), with each face serving a 120-degree portion of the roughly circular coverage area extending out from the antenna mast.

Whenever a cellular phone user initiates or receives a communication—such as a voice call or text message—the carrier routinely creates a record, including the date and exact time, of the tower and sector handling the communication at the start and end of the communication. From the data collected

1 by service providers, it is possible to determine the general geographic location area of a cell phone at a
2 specific time.

3 Agent Luna will use exhibits which plot the cell towers utilized by these cell phones. The
4 location of all cell towers and the underlying call detail records associated with these cell phones have
5 been provided to the defendants in discovery. Agent Luna's report with these exhibits will be provided
6 to the defendants forthwith. The government will provide an updated disclosure pursuant to Rule 16 if
7 we anticipate that Agent Luna's testimony will encompass additional cellular phones.

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9 DATED: April 7, 2015

Respectfully submitted,

10 MELINDA HAAG
11 United States Attorney

12 /s/
13 BENJAMIN TOLKOFF
14 Assistant United States Attorneys
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